



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada  
  
Tel (613) 632-5200  
Fax 613 632-5246

D2665-2

Job Sheet 192405

Part No: D2665-2

Job Qty: 4 pcs

Part Name: Saddle, RH, Fwd, Aft, Out

Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 3/22/19

Job Tracking No:

Due Date: 4/22/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV D IPP: C 00.11.01 Removed P/O for Powder Coat - in house process EC IPP Rev:D As per Rev D 07-03-19 JLM

Ship Via:

Bill of Materials

Job Routing

| Op No | Operation                   | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier         |           | Sign-off     |
|-------|-----------------------------|-------|------------|----------|-----------|---------|-----------------------------|-----------|--------------|
|       |                             |       |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier       | Lead Time |              |
| 100   | HAAS 4 Axis                 | 4 pcs |            | 4/22/19  | 0.00      | 8.64    | HAAS - 1                    |           | SBL 19/03/31 |
|       |                             |       |            |          |           |         | HAAS - 2                    |           |              |
|       |                             |       |            |          |           |         | HAAS - 3                    |           |              |
|       |                             |       |            |          |           |         | HAAS - 4                    |           |              |
| 110   | Conventional Mill - 1 - B4B | 4 pcs |            | 4/22/19  | 0.00      | 0.43    | Conventional Mill - 1 - B4B |           | SBL 19/04/01 |
|       |                             |       |            |          |           |         | Conventional Mill - 2 - B4B |           |              |
| 120   | QC 2                        | 4 pcs |            | 4/22/19  | 0.00      | 0.00    | QC 2 - 1                    |           |              |
|       |                             |       |            |          |           |         | QC 2 - 12                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 14                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 17                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 19                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 2                    |           |              |
|       |                             |       |            |          |           |         | QC 2 - 20                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 22                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 23                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 25                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 32                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 33                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 35                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 39                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 4                    |           |              |
|       |                             |       |            |          |           |         | QC 2 - 40                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 44                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 45                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 48                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 49                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 50                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 51                   |           |              |
|       |                             |       |            |          |           |         | QC 2 - 52                   |           |              |



Container No: S167972



Part: D2665-2  
Job No: 192405  
Serial No/Batch: S167972  
Revision:  
Inspector:  
Exp Date:  
Instructions: Various STC's

Dart Aerospace Ltd.  
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Date: 03/31/19

|                                    |          |         |           |                           |              |
|------------------------------------|----------|---------|-----------|---------------------------|--------------|
| 130 QC 8                           | 4<br>pcs | 4/22/19 | 0.00 0.00 | QC 2 - 56                 | SBL 19/04/01 |
|                                    |          |         |           | QC 2 - 57                 |              |
|                                    |          |         |           | QC 2 - 62                 |              |
|                                    |          |         |           | QC 2 - 63                 |              |
|                                    |          |         |           | QC 2 - 8                  |              |
|                                    |          |         |           | QC 2 - 66                 |              |
|                                    |          |         |           | QC 2 - 64                 |              |
|                                    |          |         |           | QC 2 - 65                 |              |
|                                    |          |         |           | QC 2 - 5                  |              |
|                                    |          |         |           | QC 8 - 12                 |              |
|                                    |          |         |           | QC 8 - 14                 |              |
|                                    |          |         |           | QC 8 - 17                 |              |
|                                    |          |         |           | QC 8 - 20                 |              |
| 140 Handfinish - 1-1 Chemical-B4B  | 4<br>pcs | 4/22/19 | 0.00 0.31 | QC 8 - 25                 | MK 19/04/01  |
|                                    |          |         |           | QC 8 - 3                  |              |
|                                    |          |         |           | QC 8 - 32                 |              |
|                                    |          |         |           | QC 8 - 33                 |              |
|                                    |          |         |           | QC 8 - 35                 |              |
|                                    |          |         |           | QC 8 - 39                 |              |
|                                    |          |         |           | QC 8 - 4                  |              |
|                                    |          |         |           | QC 8 - 44                 |              |
|                                    |          |         |           | QC 8 - 45                 |              |
|                                    |          |         |           | QC 8 - 49                 |              |
|                                    |          |         |           | QC 8 - 58                 |              |
|                                    |          |         |           | QC 8 - 8                  |              |
|                                    |          |         |           | QC 8 - 9                  |              |
|                                    |          |         |           | QC 8 - 68                 |              |
|                                    |          |         |           | QC 8 - 67                 |              |
|                                    |          |         |           | QC 8 - 1 (A)              |              |
|                                    |          |         |           | QC 8 - 47                 |              |
|                                    |          |         |           | QC 8 - 40                 |              |
|                                    |          |         |           | QC 8 - 52                 |              |
|                                    |          |         |           | QC 8 - 23                 |              |
|                                    |          |         |           | Handfinish - 1 - 1 - B4B  | D.R 19/04/02 |
|                                    |          |         |           | Handfinish - 1 - 2 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 3 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 4 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 5 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 6 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 7 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 8 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 9 - B4B  |              |
|                                    |          |         |           | Handfinish - 1 - 10 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 11 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 12 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 13 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 14 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 15 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 16 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 17 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 18 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 19 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 20 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 21 - B4B |              |
|                                    |          |         |           | Handfinish - 1 - 22 - B4B |              |
| 150 Powdercoat - 1 White Gl(A)-B4B | 4<br>pcs | 4/22/19 | 0.00 0.18 | Powdercoat - 1 - B4B      | BL 19-04-2   |
|                                    |          |         |           | Powdercoat - 2 - B4B      |              |
|                                    |          |         |           | Powdercoat - 3 - B4B      |              |
|                                    |          |         |           | Powdercoat - 4 - B4B      |              |

START: 11:45 OLT: 30 Finish: 12:15

|                                 |          |         |           |                        |  |
|---------------------------------|----------|---------|-----------|------------------------|--|
| 160 QC 3                        | 4<br>pcs | 4/22/19 | 0.00 0.00 | QC 3 - 10              |  |
|                                 |          |         |           | QC 3 - 13              |  |
|                                 |          |         |           | QC 3 - 15              |  |
|                                 |          |         |           | QC 3 - 17              |  |
|                                 |          |         |           | QC 3 - 18              |  |
|                                 |          |         |           | QC 3 - 2               |  |
|                                 |          |         |           | QC 3 - 28              |  |
|                                 |          |         |           | QC 3 - 3               |  |
|                                 |          |         |           | QC 3 - 30              |  |
|                                 |          |         |           | QC 3 - 34              |  |
|                                 |          |         |           | QC 3 - 36              |  |
|                                 |          |         |           | QC 3 - 41              |  |
|                                 |          |         |           | QC 3 - 51              |  |
|                                 |          |         |           | QC 3 - 58              |  |
|                                 |          |         |           | QC 3 - 59              |  |
|                                 |          |         |           | QC 3 - 68              |  |
|                                 |          |         |           | QC 3 - 9               |  |
|                                 |          |         |           | QC 3 - 40              |  |
|                                 |          |         |           | QC 3 - 19              |  |
| 170 Packaging 3-1 - Stock - B4B | 4<br>pcs | 4/22/19 | 0.00 0.00 | Packaging 3 - 1 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 2 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 3 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 4 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 5 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 6 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 7 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 8 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 9 - B4B  |  |
|                                 |          |         |           | Packaging 3 - 10 - B4B |  |
|                                 |          |         |           | Packaging 3 - 11 - B4B |  |
|                                 |          |         |           | Packaging 3 - 12 - B4B |  |
|                                 |          |         |           | Packaging 3 - 13 - B4B |  |
|                                 |          |         |           | Packaging 3 - 14 - B4B |  |
|                                 |          |         |           | Packaging 3 - 15 - B4B |  |
|                                 |          |         |           | Packaging 3 - 16 - B4B |  |
|                                 |          |         |           | Packaging 3 - 17 - B4B |  |
|                                 |          |         |           | Packaging 3 - 18 - B4B |  |
|                                 |          |         |           | Packaging 3 - 19 - B4B |  |
|                                 |          |         |           | Packaging 3 - 20 - B4B |  |
|                                 |          |         |           | Packaging 3 - 21 - B4B |  |
|                                 |          |         |           | Packaging 3 - 22 - B4B |  |
|                                 |          |         |           | Packaging 3 - 23 - B4B |  |
|                                 |          |         |           | Packaging 3 - 24 - B4B |  |
|                                 |          |         |           | Packaging 3 - 25 - B4B |  |
|                                 |          |         |           | Packaging 3 - 26 - B4B |  |
|                                 |          |         |           | Packaging 3 - 27 - B4B |  |
|                                 |          |         |           | Packaging 3 - 28 - B4B |  |
|                                 |          |         |           | Packaging 3 - 29 - B4B |  |
|                                 |          |         |           | Packaging 3 - 30 - B4B |  |
|                                 |          |         |           | Packaging 3 - 31 - B4B |  |
|                                 |          |         |           | Packaging 3 - 32 - B4B |  |
|                                 |          |         |           | Packaging 3 - 33 - B4B |  |
|                                 |          |         |           | Packaging 3 - 34 - B4B |  |
|                                 |          |         |           | Packaging 3 - 35 - B4B |  |
|                                 |          |         |           | Packaging 3 - 36 - B4B |  |
| 180 QC 21 - SA                  | 4<br>pcs | 4/22/19 | 0.00 0.00 | QC 21 - SA - 21        |  |
|                                 |          |         |           | QC 21 - SA - 70        |  |
|                                 |          |         |           | QC 21 - SA - 53        |  |

Part Op 100 - HAAS CNC Vertical Machine - 1- Program batch number 2- Machine Step # 1 of Folio and visually inspect as per

Descriptions: attached Dimension Sheet 3- Machine Step # 2 of Folio and visually inspect as per attached Dimension Sheet 4- Machine Step # 3 of Folio and visually inspect as per attached  
110 - Manufacture as per dwg Machine Keyway and inspect per attached dimension sheet  
120 - QC2- Inspect parts off machine FAI/FAIB  
130 - QC8- Inspect parts - second check  
140 - Chemical Conversion Coat per QSI005 4.1  
150 - White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum START TIME: \_\_\_\_\_ OVEN TEMPERATURE: \_\_\_\_\_  
FINISH TIME: \_\_\_\_\_  
160 - QC3- Inspect Part Finish  
170 - Identify as per dwg & Stock Location: \_\_\_\_\_  
180 - QC21- Final Inspection - Work Order Release

| Job BOM     |                     |              |                 |           |
|-------------|---------------------|--------------|-----------------|-----------|
| Part / Item | Component Name      | Quantity     | Operation       | Container |
| D6101-003   | Saddle Billet, 7075 | 4 pcs (1 ea) | 100-HAAS 4 Axis | S156 345  |

| Job Allocations |                |          |           |           |
|-----------------|----------------|----------|-----------|-----------|
| Operation       | Component Part | Required | Inventory | Allocated |
| 100-HAAS 4 Axis | D6101-003      | 4        | 37        | 0         |

| Part Specifications                |  |  |  |  |
|------------------------------------|--|--|--|--|
| Specifications could not be found. |  |  |  |  |

Plex 3/22/19 2:40 PM Dart.lajeunesse.marie

|                                               |  |                      |
|-----------------------------------------------|--|----------------------|
| DART AEROSPACE LTD                            |  | Work Order: 192405   |
| Description: 206 Saddle, Outboard, Right side |  | Part Number: D2665-2 |
| Inspection Dwg: D2665 Rev: D DSK: Rev:        |  | Page 1 of 1          |

FIRST ARTICLE INSPECTION DIMENSION SHEET

| Dim | Min   | Max   | Go/No Go Gauge | Record Actual Dimensions |       |       |       |   |
|-----|-------|-------|----------------|--------------------------|-------|-------|-------|---|
|     |       |       |                | 1                        | 2     | 3     | 4     | 5 |
| A   | 0.100 | 0.140 |                | .122                     | .122  | .120  | .121  |   |
| B   | 0.100 | 0.140 |                | .117                     | .117  | .117  | .118  |   |
| C   | 1.125 | 1.145 |                | 1.135                    | 1.135 | 1.135 | 1.135 |   |
| D   | 0.615 | 0.685 |                | .682                     | .675  | .675  | .680  |   |
| E   | 0.240 | 0.260 |                | .254                     | .255  | .255  | .255  |   |
| F   | 1.313 | 1.343 |                | 1.327                    | 1.327 | 1.326 | 1.327 |   |
| G   | 0.210 | 0.230 |                | .223                     | .225  | .225  | .225  |   |
| H   | 0.100 | 0.180 |                | .130                     | .130  | .134  | .132  |   |
| I   | 2.470 | 2.510 |                | 2.495                    | 2.495 | 2.495 | 2.495 |   |
| J   | 1.565 | 1.585 |                | 1.575                    | 1.575 | 1.575 | 1.575 |   |
| K   | 0.235 | 0.240 |                | .239                     | .239  | .239  | .239  |   |
| L   | 0.100 | 0.120 |                | .112                     | .115  | .113  | .113  |   |
| M   | 0.990 | 1.010 |                | 1.000                    | 1.000 | 1.000 | 1.000 |   |
| N   | 0.510 | 0.515 |                | .510                     | .510  | .510  | .510  |   |
| O   | 5.990 | 6.010 |                | 5.995                    | 5.998 | 5.998 | 5.998 |   |
| P   | 1.245 | 1.255 |                | 1.250                    | 1.250 | 1.250 | 1.250 |   |
| Q   | 2.495 | 2.505 |                | 2.500                    | 2.500 | 2.500 | 2.500 |   |
| R   | 0.312 | 0.318 |                | .312                     | .312  | .312  | .312  |   |
| S   | 0.315 | 0.322 |                | .316                     | .316  | .316  | .316  |   |
| T   | 2.495 | 2.505 |                | 2.500                    | 2.500 | 2.500 | 2.500 |   |
| U   | 1.357 | 1.367 |                | 1.362                    | 1.362 | 1.362 | 1.362 |   |
| V   | 0.787 | 0.807 |                | .791                     | .793  | .793  | .792  |   |
| W   | 0.540 | 0.560 |                | .548                     | .550  | .550  | .548  |   |
| X   | 1.674 | 1.684 |                | 1.679                    | 1.679 | 1.679 | 1.679 |   |
| Y   | 0.256 | 0.262 |                | .257                     | .257  | .257  | .257  |   |
| Z   | 0.912 | 0.932 |                | .924                     | .922  | .922  | .922  |   |
| AA  | 0.490 | 0.510 |                | .500                     | .498  | .502  | .499  |   |
| AB  | 0.178 | 0.198 |                | .188                     | .188  | .188  | .188  |   |
| AC  |       |       |                |                          |       |       |       |   |
| AD  |       |       |                |                          |       |       |       |   |
| AE  |       |       |                |                          |       |       |       |   |

DAS Accept/Reject

|                     |                |
|---------------------|----------------|
| Measured by: 57     | Date: 19/04/01 |
| Audited by: 9-89    | Date: 19/04/01 |
| Prototype Approval: | Date:          |

| Rev | Date     | Change                                            | Revised by | Approved |
|-----|----------|---------------------------------------------------|------------|----------|
| A   |          | New Issue                                         | RF         |          |
| B   | 99.04.19 | Incorporated DSI 9095, DSI 9102 & DSI 9122 Rev. A | RF         |          |
| C   | 99.11.10 | Added Dim. R-T                                    | RF         |          |
| D   | 02.12.12 | Reformat; Added Dim. U-W & DT8683, DT8686         | KJ/RF      |          |
| E   | 06.07.05 | Revised per drawing revision C                    | KJ/JLM     |          |
| F   | 07.03.21 | Revised per drawing revision D                    | KJ/JLM     |          |
| G   | 12.03.08 | Dimension R and Y revised                         | KJ         |          |

DQA: \_\_\_\_\_ Date: 19/04/01

*md*  
*20 jun 2019*

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐



|                                  |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
|----------------------------------|--|----------------------------|--|------------------------|--|-----------------------------------|--|-----------------------|--|----------------------|--|
| Work Order: <u>192 405</u>       |  | AGAINST DEPARTMENT/PROCESS |  |                        |  | Engineering                       |  |                       |  |                      |  |
| Part No. <u>D2665-2</u>          |  | Cross tube                 |  |                        |  | Quality                           |  |                       |  |                      |  |
| NCR No. <u>19-7220</u>           |  | Skid-tube                  |  |                        |  | Other                             |  |                       |  |                      |  |
| Date: <u>19/04/01</u>            |  | Machining                  |  |                        |  |                                   |  |                       |  |                      |  |
| Step #: <u>100</u>               |  | Thermoforming              |  |                        |  |                                   |  |                       |  |                      |  |
| Description Work Order Deviation |  | Large Fab                  |  |                        |  |                                   |  |                       |  |                      |  |
| Disposition                      |  | Composite                  |  |                        |  |                                   |  |                       |  |                      |  |
| Suspected Unapproved             |  | Use-as-is                  |  |                        |  |                                   |  |                       |  |                      |  |
| Rework                           |  | Scrap                      |  |                        |  |                                   |  |                       |  |                      |  |
| Use-as-is                        |  | Approved                   |  |                        |  |                                   |  |                       |  |                      |  |
| QTY Effective: <u>1</u>          |  | Water Jet                  |  |                        |  |                                   |  |                       |  |                      |  |
| MRB (QS1042) Approval            |  | Prod. Eng. Coord.          |  |                        |  |                                   |  |                       |  |                      |  |
| 12 <u>19/04/01</u>               |  | Rec/Store/Packaging        |  |                        |  |                                   |  |                       |  |                      |  |
| Completed By                     |  | Supplier                   |  |                        |  |                                   |  |                       |  |                      |  |
| DAS <u>57</u>                    |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| 9-89 <u>19/04/01</u>             |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| Lead hand / Supervisor           |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| Approval Verification            |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| <u>19/04/01</u>                  |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| QC / QA Coordinator              |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| Approval                         |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| <u>19-04-01</u>                  |  |                            |  |                        |  |                                   |  |                       |  |                      |  |
| Root Cause                       |  | FAULT CATEGORY             |  |                        |  |                                   |  |                       |  |                      |  |
| Environment                      |  | No Re-verification         |  | Pressure/Forced        |  | Temperature/Cure                  |  | Power Loss/Surge      |  | Positioned Wrong     |  |
| Design                           |  | Operator                   |  | Bending                |  | Set-up                            |  | Folio/Program         |  | Outside Dimensions   |  |
| Doc/Data                         |  | Offset/Setup               |  | Centre Not Concentric  |  | BOM/Route                         |  | Grain                 |  | Over/Under tolerance |  |
| Equip/Tooling                    |  | Supplier                   |  | Cracks                 |  | Broken/Damage/Defect              |  | Weld                  |  | Part Incorrect       |  |
| Handling/Pre                     |  | Training                   |  | Crimp/Kink/Ripple/Wave |  | Inspection Incomplete/Unqualified |  | Wrong Stock Pulled    |  | Part Lost/Missing    |  |
| Material                         |  | Use for Testing            |  | Cuffs                  |  | Contamination                     |  | Out of Sequence       |  | Part Moved           |  |
| Internal Transport               |  | Poor Information           |  | Crushing               |  | Countersink                       |  | Off-set               |  | Drawing              |  |
| Tribal Knowledge                 |  | Rushing                    |  | Heat Treat             |  | Cut Too Short                     |  | Mislabelled           |  | Finish               |  |
| LOA                              |  | Product Improvement        |  | Wave/Twist in Tube     |  | Instructions Incomplete/Unclear   |  | Fit/Function          |  | Misread              |  |
| Substation                       |  | Process Improvement        |  | Marks/Chatter          |  | Drill Holes                       |  | Misaligned/off center |  | Turning Sequence     |  |
| Past Expiry Date                 |  | Manufacturing Process      |  |                        |  |                                   |  |                       |  |                      |  |
| Misidentified                    |  | Past Due                   |  | OTHER :                |  |                                   |  |                       |  |                      |  |

*Chamber 9,050x45° is to deep by 9,005*

*Chamber near 9,075*

*Acceptable. Cosmetic only.*